Navigation Safety Advisory Council (NAVSAC)

Resolution 11-02

(Introduced as Task Statement #08-07)

Unmanned Vehicles / Vessels

NAVSAC recommends to the Coast Guard:

I. Unmanned Underwater Vehicles:

- A. Promulgate a requirement that all Unmanned Underwater Vehicles must, if practicable, be equipped with AIS.
- B. Amend Navigation Rule 23, both Inland and COLREGs, to add a new paragraph (e) to read:
- (e) An inconspicuous, partly submerged vessel or object while unmanned and operating autonomously shall exhibit the lights specified in Rule 24 (g).
- C. Amend Navigation Rule 24 (g), both Inland and COLREGs, to require that all inconspicuous, partly submerged vessels or objects, or combination of such vessels or objects, exhibit the specified lights at night and by day.

II. Unmanned Surface Vessels:

- A. Promulgate a requirement that all Unmanned Surface Vessels must, if practicable, be equipped with AIS.
- B. Amend Rule 3(g), both inland and COLREGs, to add a new subparagraph (vii) to read:
 - (vii) a self propelled vessel while unmanned and operating autonomously.
 - C. Amend Rule 5, both Inland and COLREGs to read:

Every <u>manned</u> vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and risk of collision.

- D. Amend Rule 27, both Inland and COLREGs, to add a new paragraph (f), amend existing paragraph (g), and renumber existing paragraphs (f), (g), and (h), to read:
- (f) Whenever the size of a vessel while unmanned and operating autonomously makes it impracticable to exhibit all lights and shapes prescribed in paragraph (d) of this Rule, the following shall instead be exhibited:
- (i) Three all-round lights in a vertical line where they can best be seen. The highest and lowest of these lights shall be red and the middle light shall be white;

(ii) A rigid replica of the international Code flag "D" not less than 1 meter in height. Measures shall be taken to insure its all-round visibility.

(Note: International Code Flag "D" means: "I am maneuvering with difficulty; keep clear")

- (g) (f) [minesweeping renumbered but no other change]
- (h) (g) Vessels of less than 12 meters in length, except those engaged in diving operations <u>and</u> those unmanned and operating autonomously, shall not be required to exhibit the lights and shapes prescribed in this Rule.
- (i) (h) [not distress signals renumbered but not otherwise changed]
 - E. Consider whether additional regulations are required based on length and speed.

III. Remotely Operated Vessels/Remotely Manned Vessels

Promulgate an interpretive rule under 33 C.F.R. Parts 82 and 90 to provide that a vessel being operated remotely is considered to be manned and must comply with the applicable Navigation Rules and annexes.